



Energy Effective Lighting



# GO FLL™ Planar Lighting User Manual

# About GO FLL™ (Flat LED Lighting)

## 1. Energy & maintenance savings

Electrical savings of 20% or more, compared to traditional fluorescent sets with equivalent light output. Low heat generation (maximum 47°C). Added cost savings on cleaning and dusting, as there are no louvers or other dust catching reflectors or lights.

## 2. Energy effective lighting for up to 50,000 hours

Difference in effective light depends on the length of time the lights are consistently running (e.g. off at night vs. 24 hour operation). Most fluorescent tubes have a rated life of 20,000 hours and require re-lamping up to 4 times during this same period.

## 3. No ultraviolet radiation, EMI, flickering or temperature patches

Will not affect those sensitive to UV, will not fade carpets, pictures, or turn photo-sensitive eyeglasses dark. No electromagnetic interference, unlike fluorescents and compact fluorescents; GO FLL™, eliminates eye strain, headaches and other workplace complaints associated with fluorescent light flickering. With no "cold" or "warm" spots (light and dark areas) GO FLL™, provides a very high uniformity of light across the entire illumination surface .

## 4. Environmentally-friendly

Contains no Lead (Pb), Mercury (Hg) and Cadmium (Cd); no hazardous disposal requirements. Fully recyclable.

## 5. True Planar Lighting

GO FLL™ is a very slim lighting appliance, at only 23.5mm thick. Can be installed in a shallow (or no) plenum area.

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# Components

## Base Parts



FLL



PSU



Manual

## Optional Parts



IR Sensor



Remote Control

Style may vary, depending upon the GO FLL™, model and features selected.



DC Extension

Standard lengths are 50cm, 1m, 2m. Special lengths are available to your requirements.

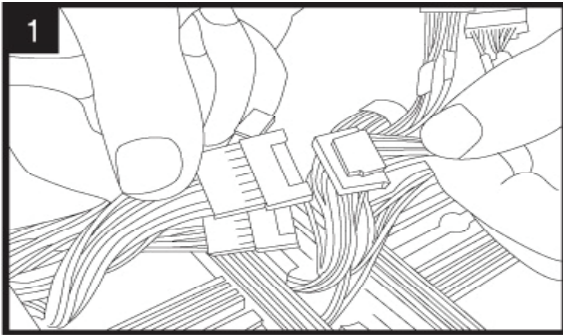


Network Cable

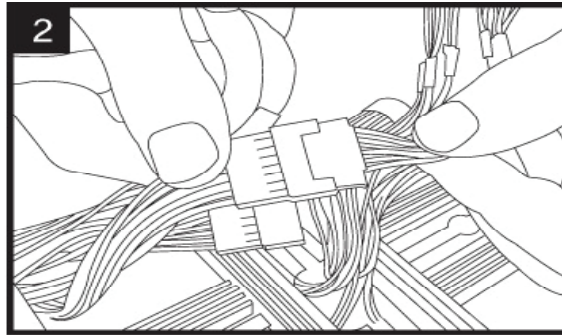
Standard lengths are 1m, 2m, 5m, 10m. Special lengths are available to your requirements.

## Wiring

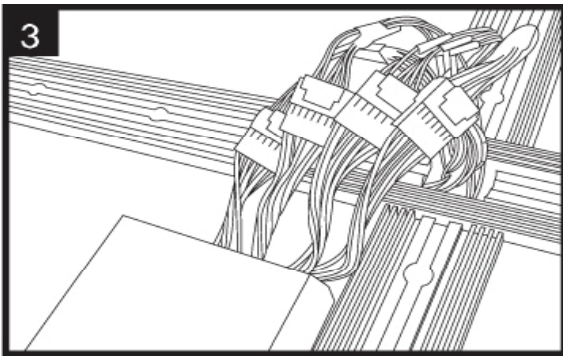
### Connect FLL connectors to those of PSU



Connect DC wiring. Note correct alignment of connector.



Insert the connectors completely until you hear the click.

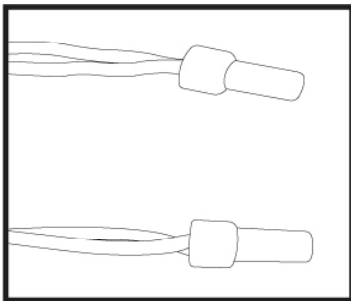


Check to see if connectors are connected properly.

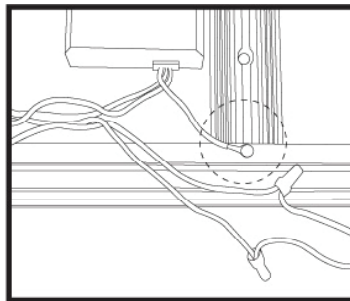
#### Caution

Wiring to be done while main power is OFF

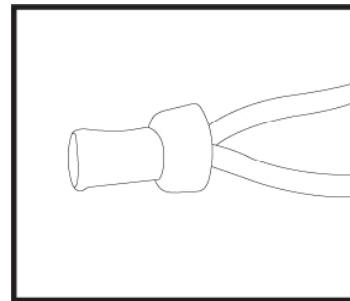
### AC Wire Connection



Note that PSU accepts voltages between 95V and 240VAC

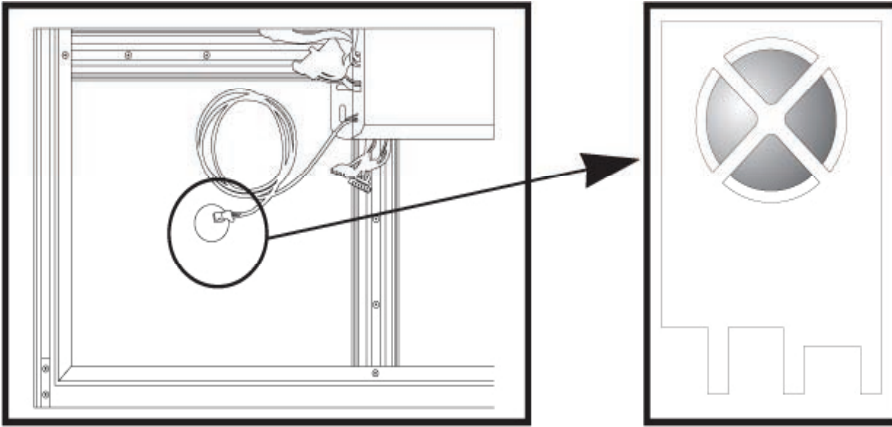


Ensure fixture is properly grounded



## IR Sensors

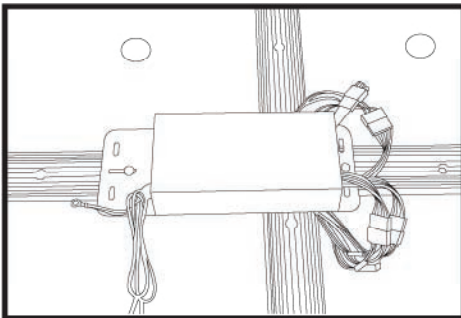
Check the location of the IR sensor reception area.



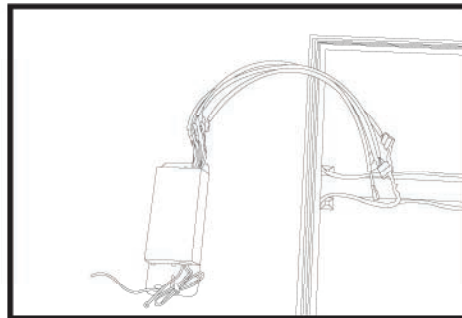
- ◇ Place IR sensor with its reception area face downward to the fixture.
- ◇ To maximize IR sensitivity, place IR sensor outside the fixture

**Caution: Do not have IR sensor touch any of metal parts during installation.**

Install PSU onto the fixtures firmly.



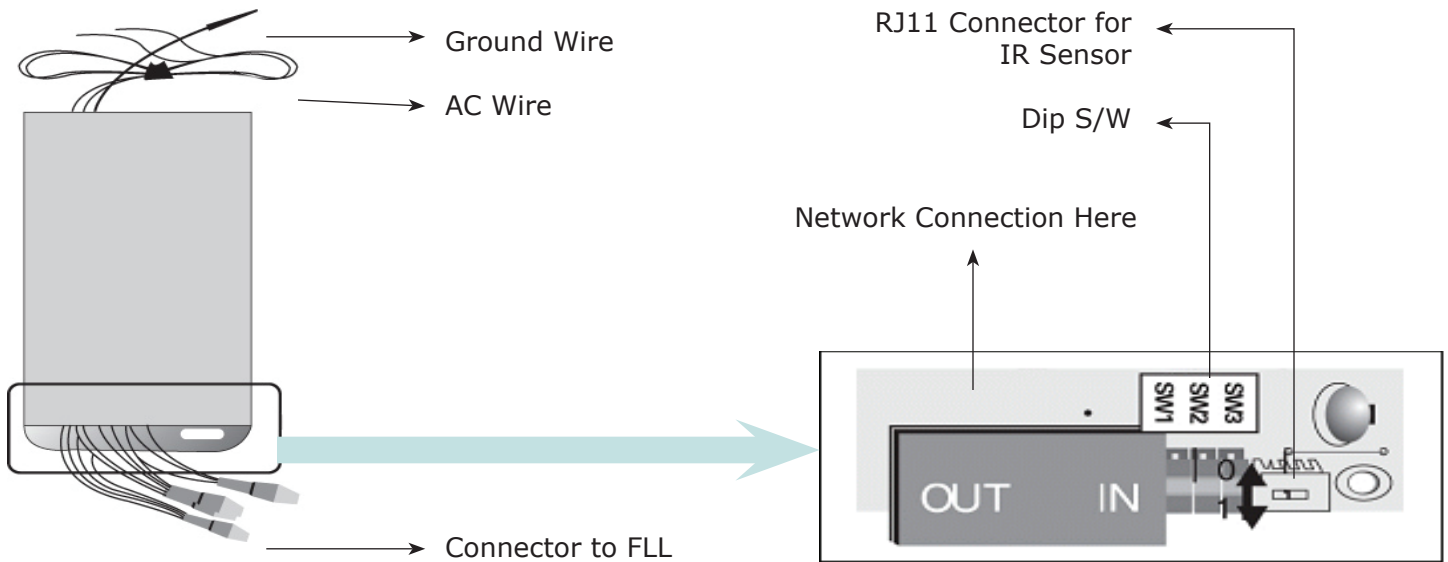
PSU installed onto fixture



PSU may be installed at a distance from the light unit by using a DC extension cable.

- ◇ PSU can be installed either onto the fixtures or with some distance to the fixture like above figures.
- ◇ Do not use excessive force during installation.

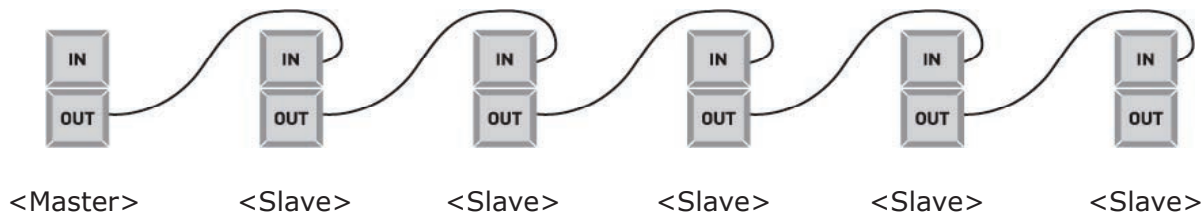
## PSU (Power Supply Unit)



- ◇ Factory setup for dip switch of the PSU is 1 1 1.
- ◇ For wire connection between PSU and FLL, refer to page 4.

## Connecting Network

Connect IR sensor to the PSU assigned as Master. Do not connect to the slaves.  
Set up dip switch per page 9 for assigning Master(s).



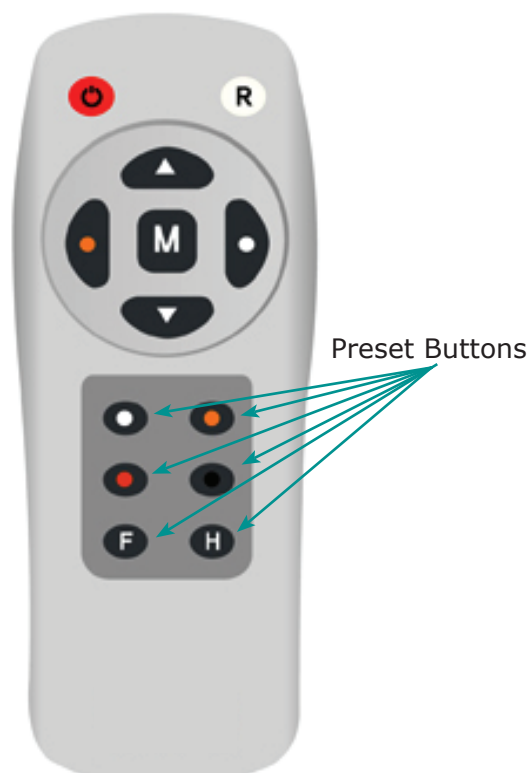
### Note:

**On/Off switch of each zone must be connected to the same line**

### Example of setting channels:

- ◇ Assign one PSU as master per channel and assign the rest of PSU as slaves per channel.
- ◇ Per channel, assign master like
  - Master 1: 001 (refer to page 9)
  - Master 2: 010
  - Master 3: 011
- ◇ Check On/Off and dimming function, per channel, by the remote control.

# Single Zone Remote Control



## Keys



**Power:** On/Off



**(R) Reset** – Hold for 2 seconds to reset all selections to factory set up. Push it, then select the button you want to make the default selection.



**(M) Memory** – Use buttons to adjust colour and brightness. Push (M) then push a preset button; your settings are saved



**Left/Right buttons** – Control colour temperature  
Left button is to lower temperature (warm white)  
Right button is to raise colour temperature (cool white)



**Up/Down buttons** – Control brightness  
◇ Up makes it brighter.  
◇ Down makes it darker.

## Presets



**Daylight Preset**



**Warm Preset**



**Max. Brightness**



**Preset**



**Night Light Preset**



**50% Brightness**

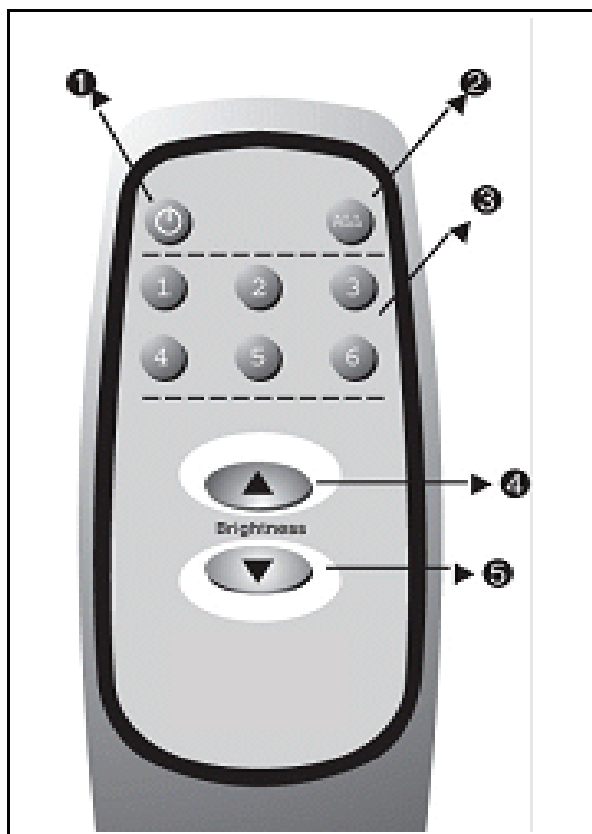


## Note:

1. All settings will be saved if the unit is turned off with the remote control, but will return to factory presets in the event of AC power interruption.
2. Normal range, remote to IR sensor is 10M (30ft), but can be affected by sensor position and any obstacles in between.
3. This remote control is for use with single-zone, ergonomic (E) installations only. For all others, use the multi-zone remote control described on page 8.



# Multi-zone Remote Control



## Keys



1. **Power** - ON/OFF key



2. **Zone** - ALL ON/OFF key



3. **Zone selection** keys (1-6)



4. **Dimming Up** key



5. **Dimming Down** key

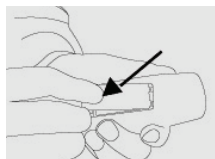
## Notes:

1. Normal range from the remote control to the IR sensor is 12m (40 ft.) but the range can be affected by sensor position and any obstacles between the remote control and the IR sensor. For maximum distance, detach the IR sensor from the GO FLL™ unit and place it external to the fixture, ensuring that the IR sensor does not make contact with the metal.
2. The multi-zone remote control is to be used for fixed colour installations only. For E (ergonomic) installations, use the single zone remote control only.

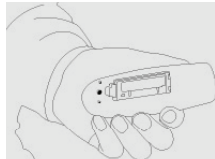
## Zone Settings

1. See page 9 for zone switch settings.
2. For individual (up to six) zone switch settings, press the appropriate button (1 - 6).
3. To control all zones simultaneously, press ALL key (2).
4. Individual zones or ALL can be controlled using Power key (1).
5. For dimming effect, use UP and DOWN arrow keys (4) and (5).

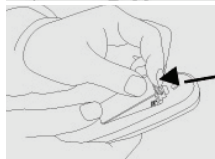
## Install Batteries



1. Push the arrow and place the lid onto the case.



2. Insert 2 AAA sized batteries, checking anode and cathode correctly



3. Cover the lid, pushing the arrow.



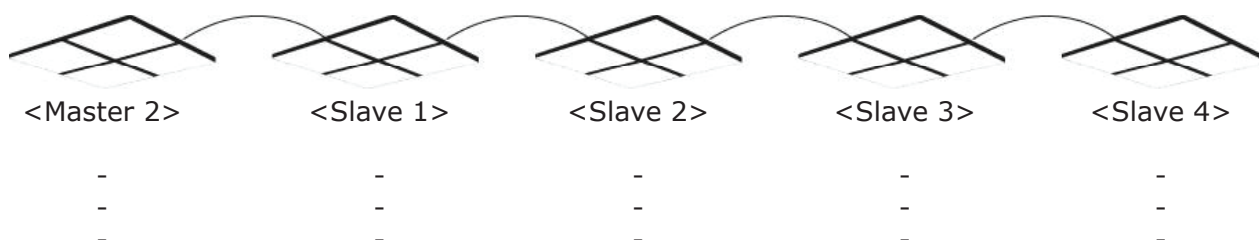
# Multi-zone Setup

**Schematic diagram of the network:** (using R06 as a typical example)

## CH1











## CH2



## CH6

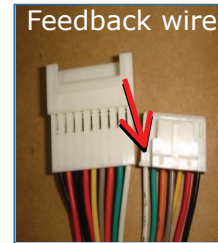


Dip S/W	Item	SW1	SW2	SW3	Remark
	Master 1	0	0	1	Set up as group 1; Press 1 on remote to assign, then use UP or DOWN buttons to dim
	Master 2	0	1	0	Set up as group 2; Press 2 on remote to assign, then use UP or DOWN buttons to dim
	Master 3	0	1	1	Set up as group 3; Press 3 on remote to assign, then use UP or DOWN buttons to dim
	Master 4	1	0	0	Set up as group 4; Press 4 on remote to assign, then use UP or DOWN buttons to dim
	Master 5	1	0	1	Set up as group 5; Press 5 on remote to assign, then use UP or DOWN buttons to dim
	Master 6	1	1	0	Set up as group 6; Press 6 on remote to assign, then use UP or DOWN buttons to dim
	All Master	1	1	1	No group is assigned (stand alone use)
	Slave 1,2,.n	0	0	0	Set up as slave - operating as per master

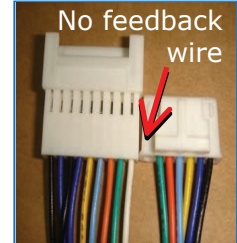
## How to connect DC extension wires to R01:

Types of DC extension wires:

Part No.	Length (cm)	Remark
PA018	50	F/B (Type A)
PA019	50	No F/B (Type B)
PA022	100	F/B (Type A)
PA023	100	No F/B (Type B)
PA026	200	F/B (Type A)
PA027	200	No F/B (Type B)

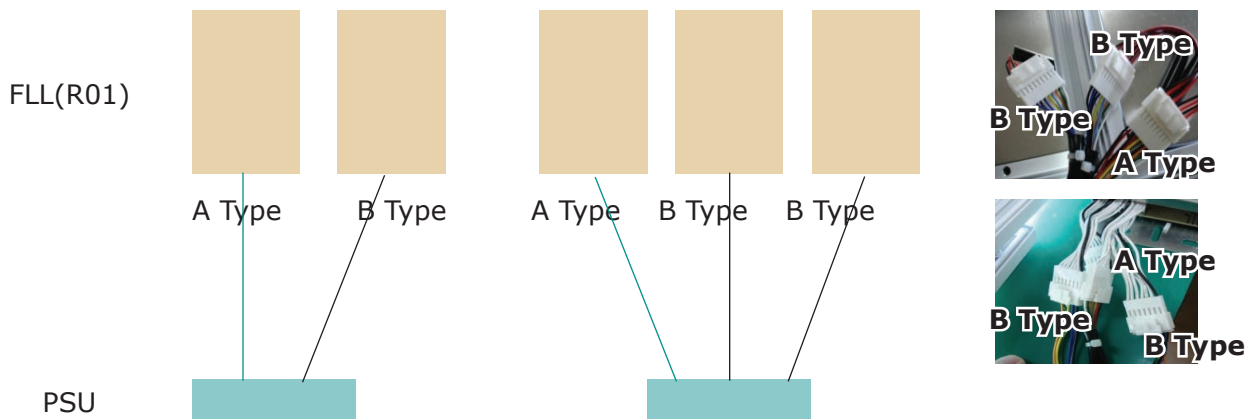


Type A: F/B  
(PA018, PA022,  
PA026)



Type B: F/B  
(PA019, PA023,  
PA027)

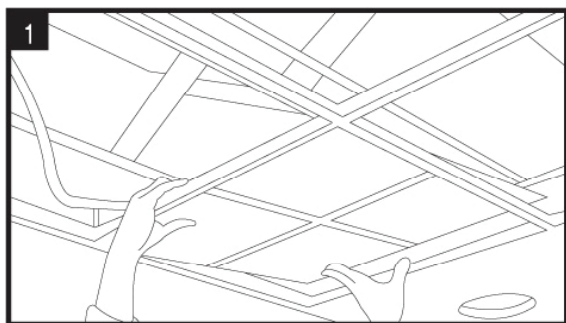
## Schematic Drawing



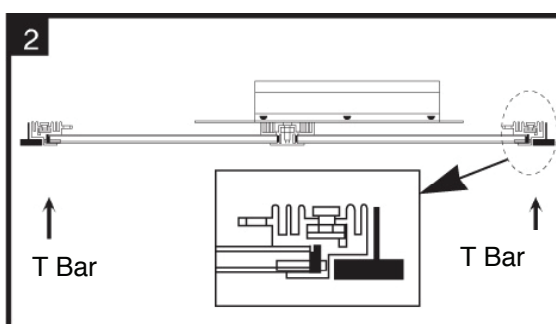
### Note:

**One PSU must have one A type DC extension wire no matter how many R01s are connected to one PSU.**

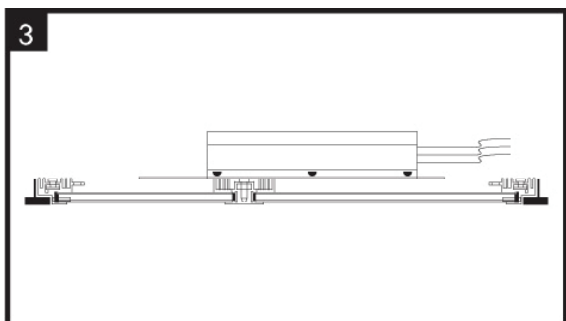
## IK01 (T-Bar) Installation



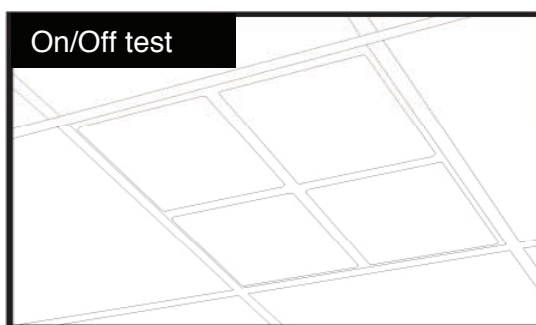
1. Place FLL onto T-Bar



2. Seat FLL securely on T-Bar



3. Wiring (refer to page 8)



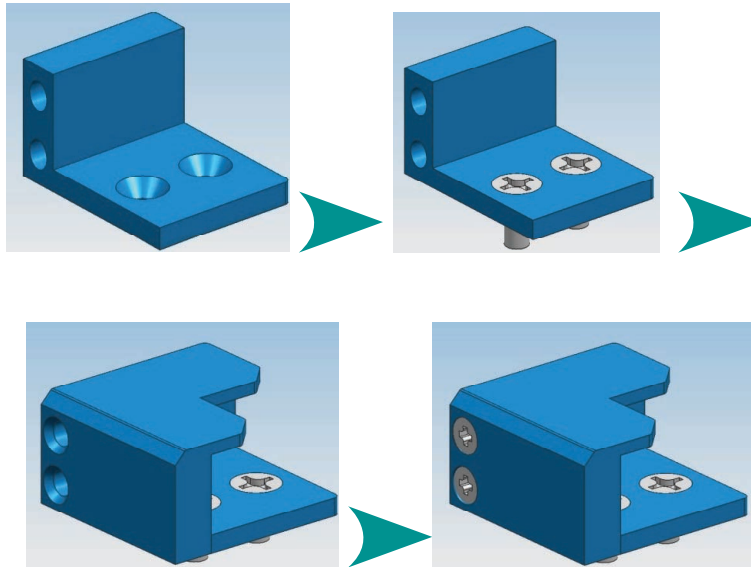
4. On/Off Test

**Note:**

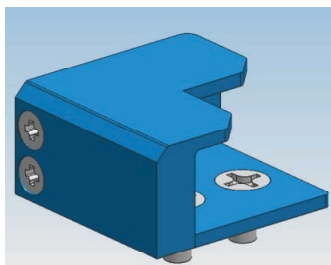
Ensure all installation and electrical connections comply with applicable regulations

# IK02 Installation

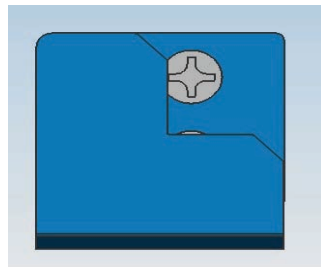
## IK02 – Assembly



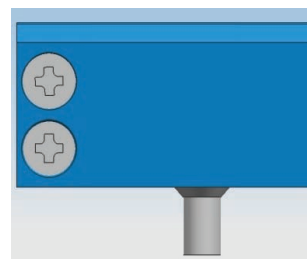
## IK02 – View



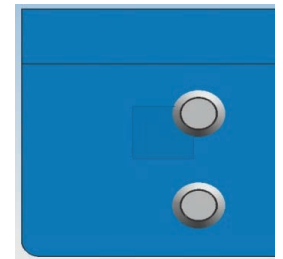
3D view



Top view

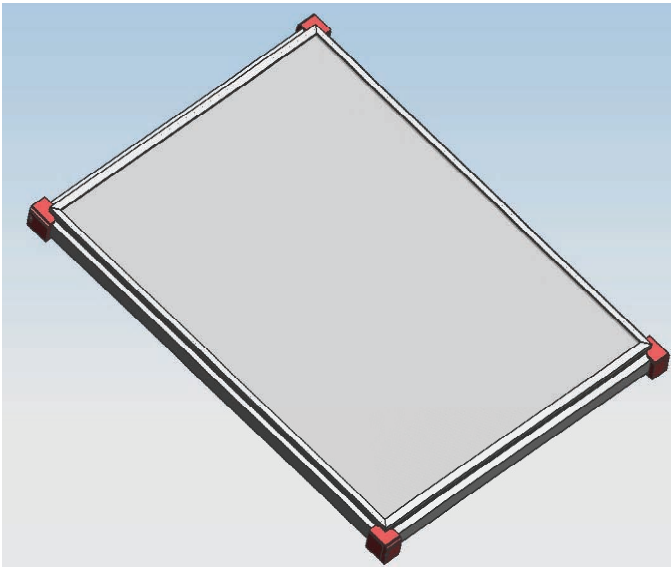


Front view

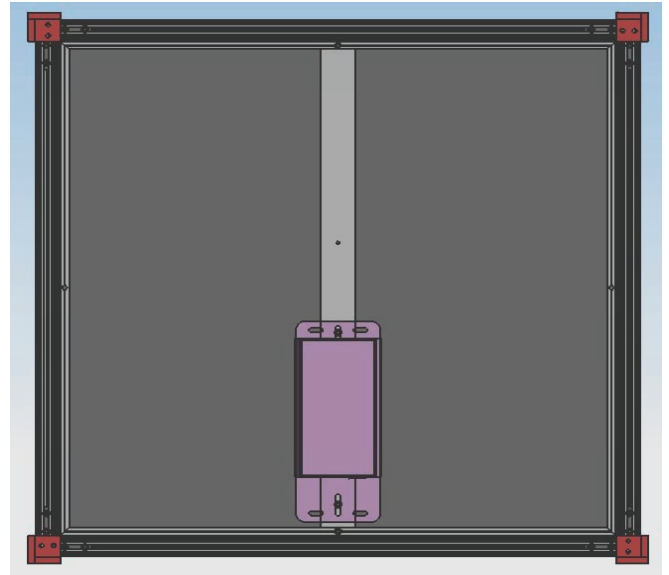


Bottom view

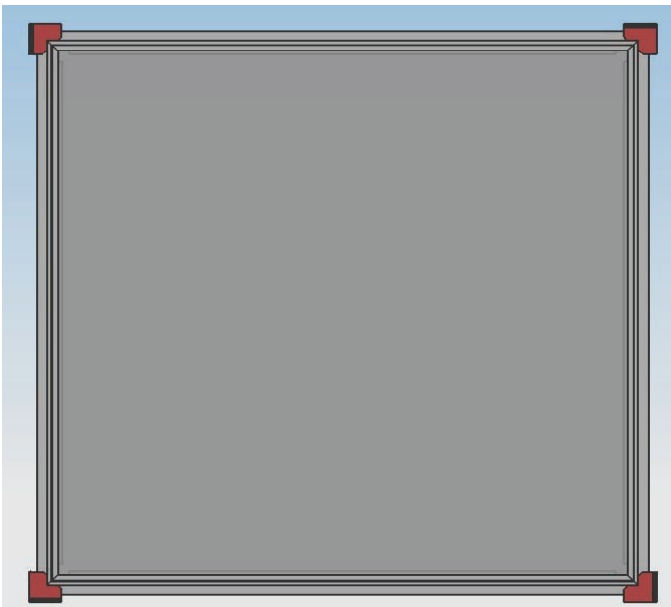
## IK02 Point Bracket: Application



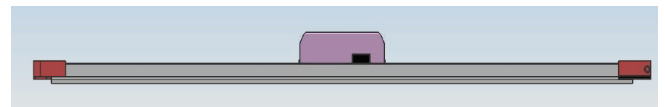
3D view



Bottom view

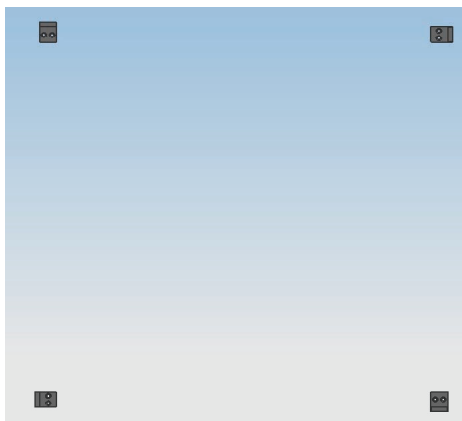
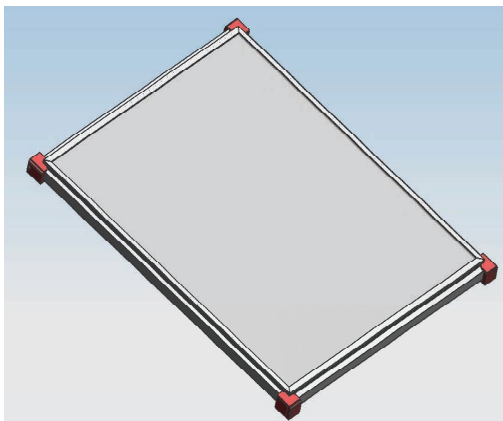


Top view

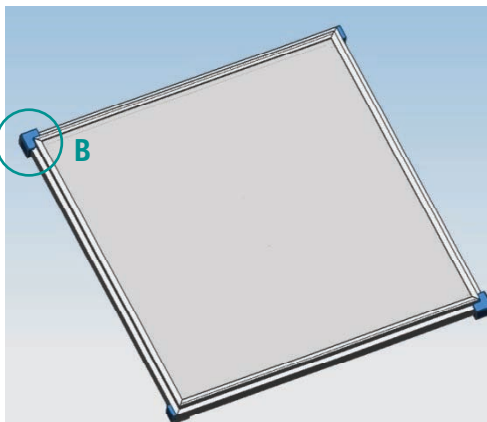
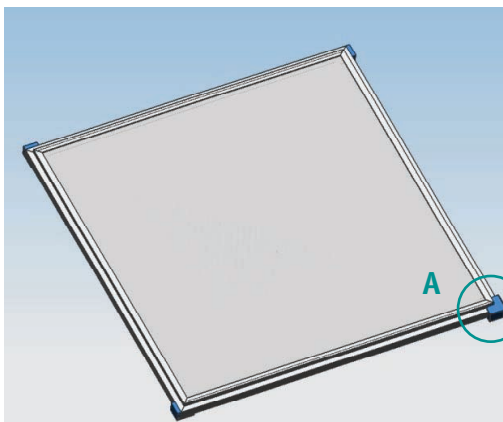


Side view

## IK02 Point Bracket Installation

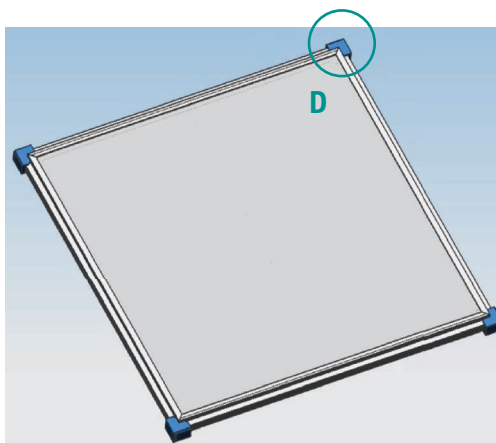
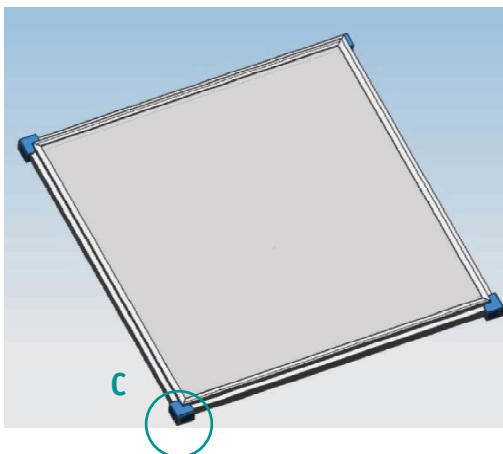


1. Mark the four corners of the FLL outline on the ceiling. Make an opening in the ceiling to fit the PSU (approx.160x430mm).



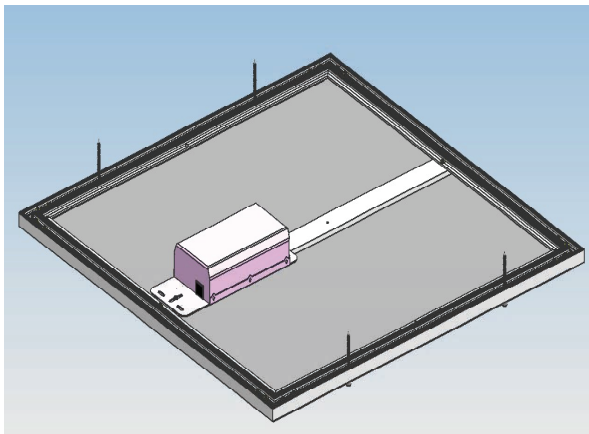
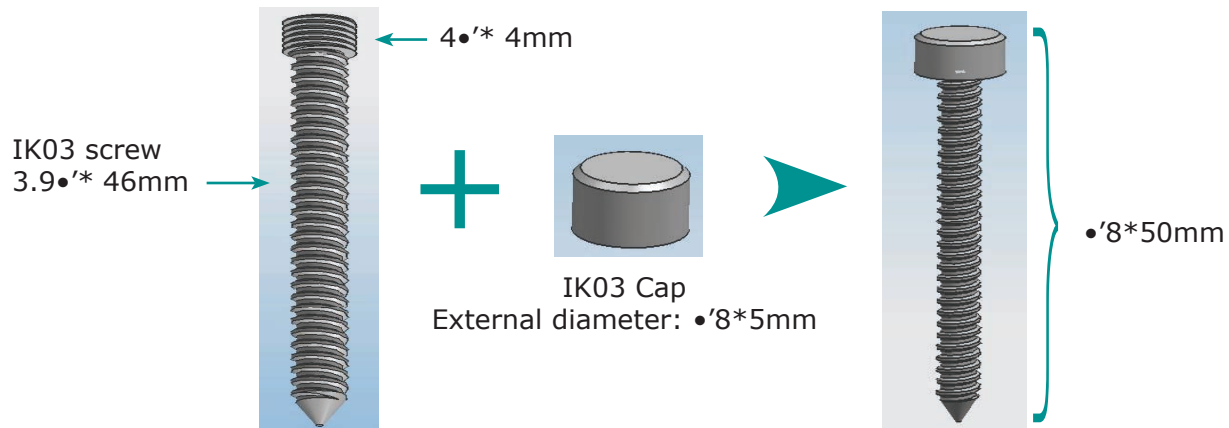
2. Assemble ONE IK02 top corner bracket to the bottom bracket on the ceiling and insert the product as shown above (A).

3. Install the diagonally opposite bracket as shown above (B).

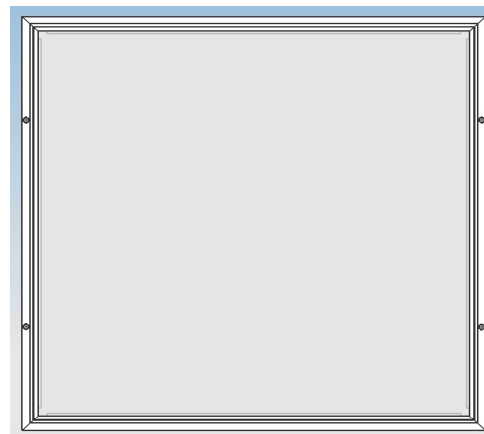


4. Repeat the same process for other two corners (C and D)

# IK03 Installation



3D view



Top view

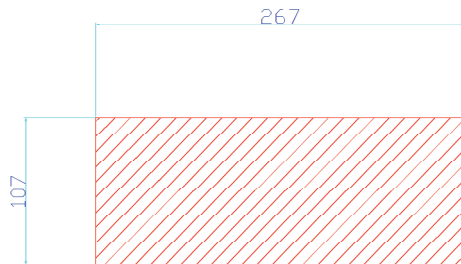


Front view

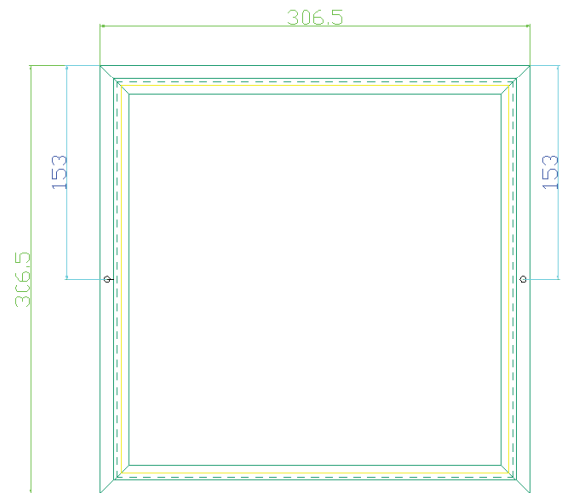




## IK03 Hole and screw-cap Application – R13TD



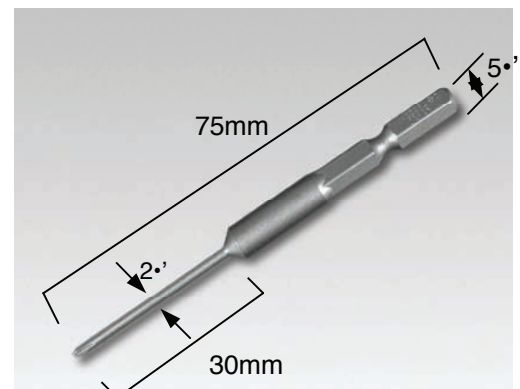
1. Make an opening on the ceiling as shown above to accommodate PSU.



2. Drill a 4.2mm\_ hole in the centre of frame as shown above.

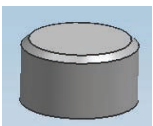
3. Mark the ceiling to match the drilled holes on the FLL frame.

4. Drill pilot holes (2.5mm~3mm) on the ceiling.



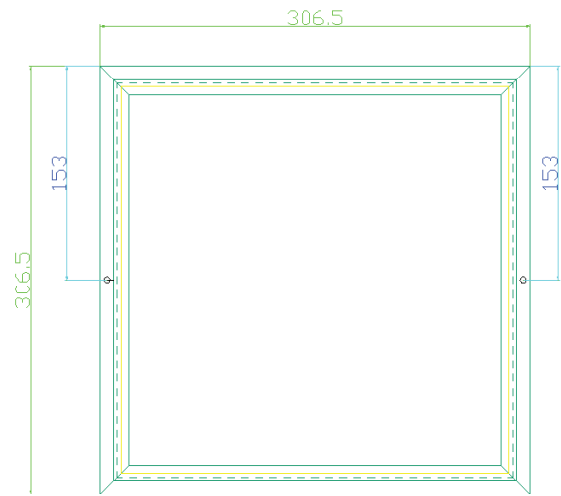
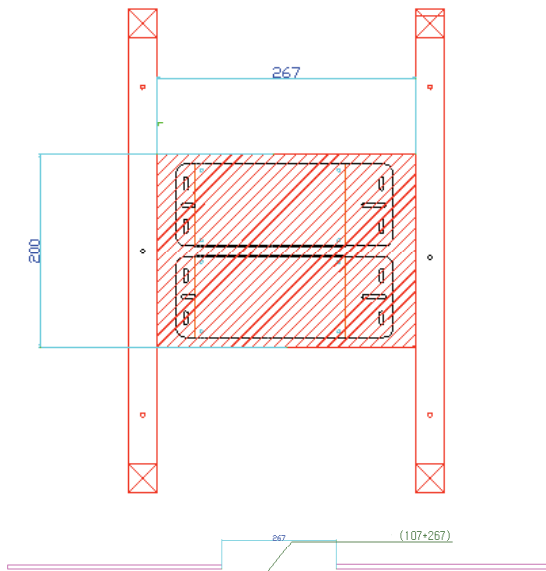
Bit: B34 (Small Philips)

5. Use the screws to secure the FLL module to the ceiling. Do not over torque. Ensure screws are securely anchored.



6. After securing the FLL module to the ceiling, cover the screw-head with IK03 cap.

## IK03 Hole and screw-cap Application – R13TE

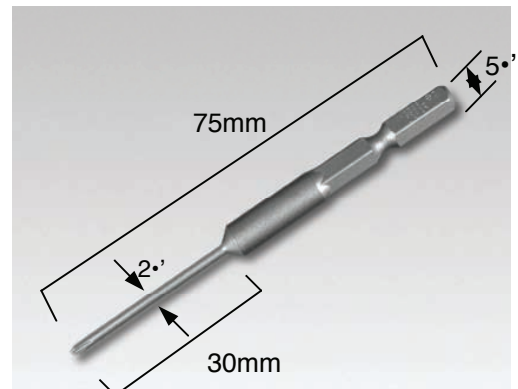


1. Make an opening on the ceiling as shown above to accommodate PSU.

2. Drill a 4.2mm\_ hole in the centre of frame as shown above.

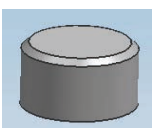
3. Mark the ceiling to match the drilled holes on the FLL frame.

4. Drill pilot holes (2.5mm~3mm) on the ceiling.



Bit: B34 (Small Philips)

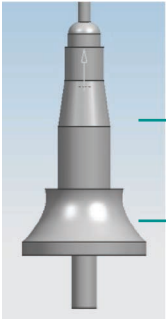
5. Use the screws to secure the FLL module to the ceiling. Do not over torque. Ensure screws are securely anchored.



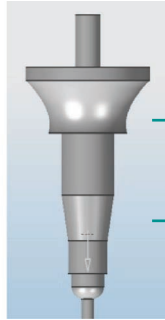
6. After securing the FLL module to the ceiling, cover the screw-head with IK03 cap.

# IK05A Installation

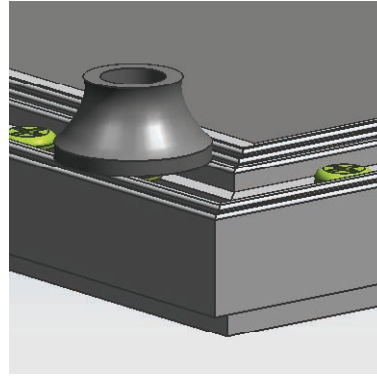
## Wire pendant



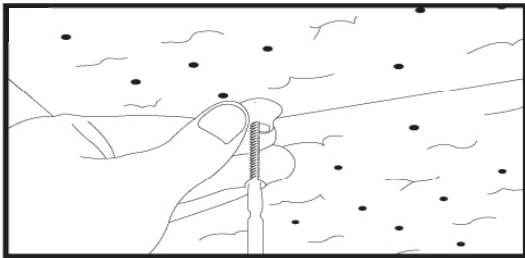
Wire pendant for the FLL module



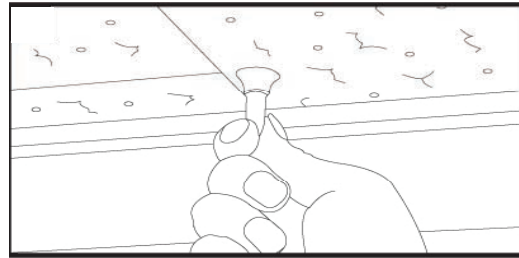
Wire pendant for the ceiling



1. After unfastening one bolt from "L" shaped bracket in each corner, fix part "A" by using M4\*10mm flat head screw.



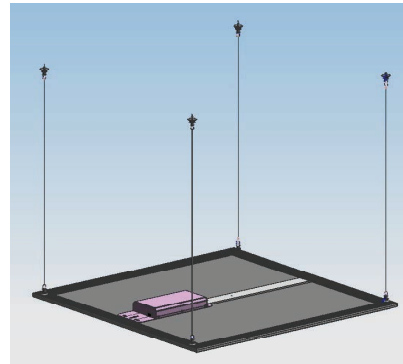
2. Securely fasten the upper part of the ceiling pendant (part "C") to the ceiling by using screw (M4x26)



3. Attach part "D" to part "C" (4 points)



4. Attach "A" to "B" as shown above



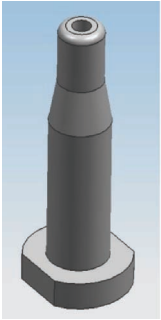
5. Adjust wire length to level FLL module

### NOTE:

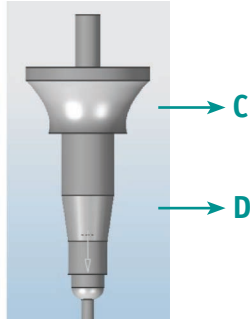
**Use appropriate mounting hardware to ensure the weight of FLL module is properly secured and supported.**

# IK05B Installation

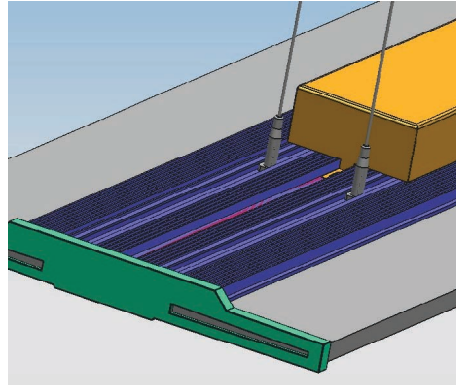
## Wire pendant



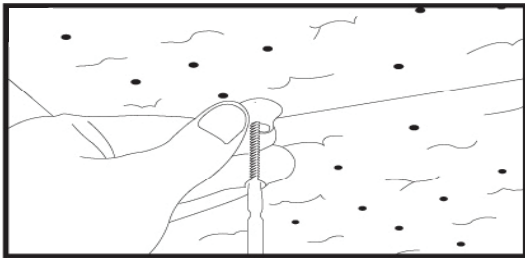
Wire pendant  
the FLL module



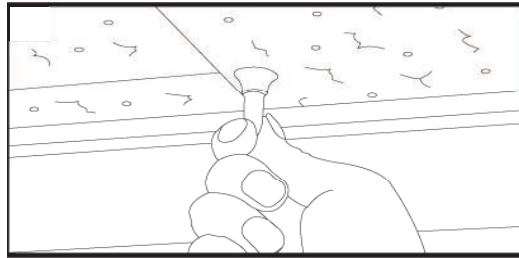
Wire pendant  
for the ceiling



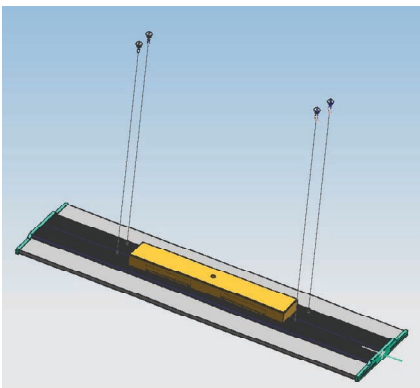
1. Secure wire pendant for the light module  
to the frame of the FLL.



2. Securely fasten the upper part of the ceiling  
pendant (part "C") to the ceiling by using  
screw (M4x26)



3. Attach part "D" to part "C" (4 points)



4. Adjust wire length to level FLL module.

### NOTE:

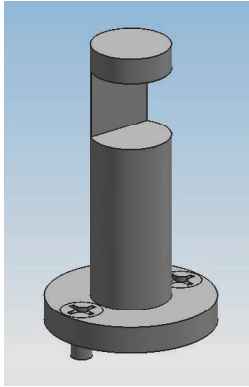
**Use appropriate mounting hardware to ensure the weight of FLL module is properly secured and supported.**



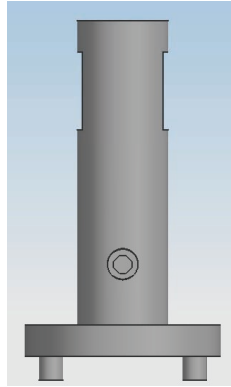
IK05B installed on module

# IK06 Installation

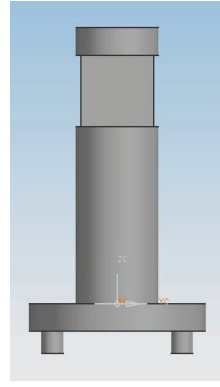
## Super bracket - Views



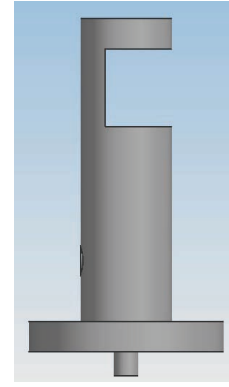
3D view



Back view

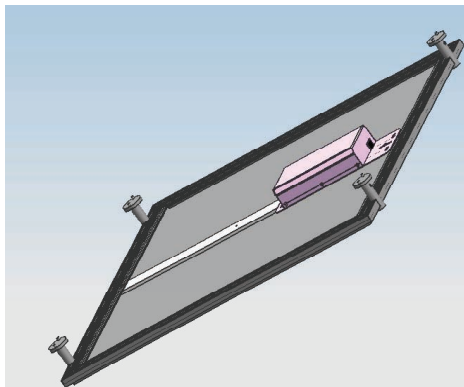


Front view

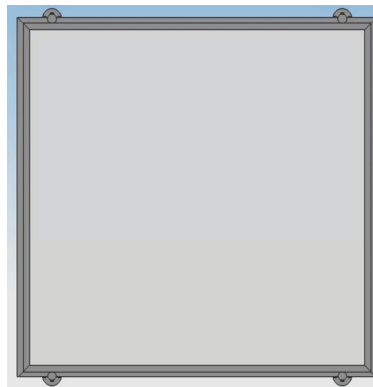


Side view

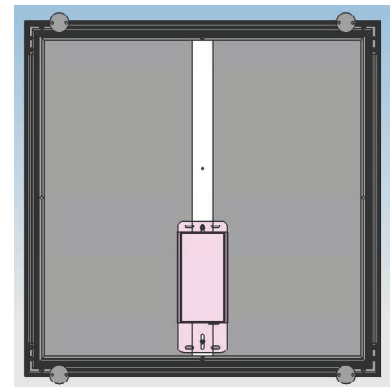
## Super bracket - Application



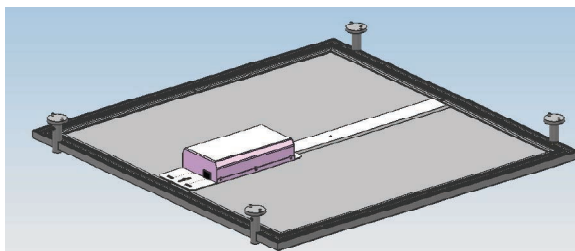
3D view



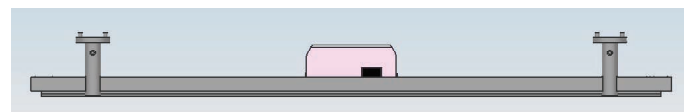
Top view



Bottom view



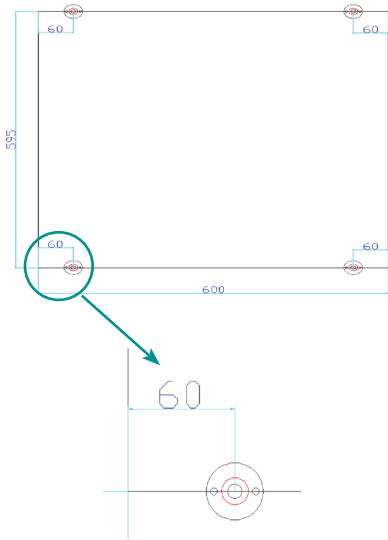
3D view



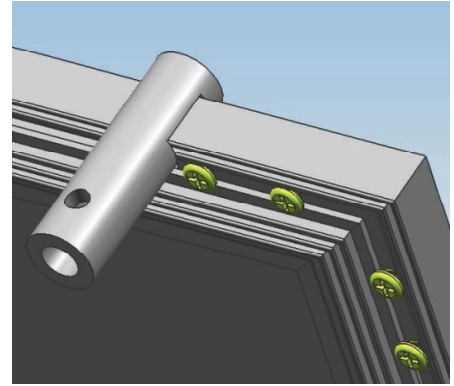
Side view



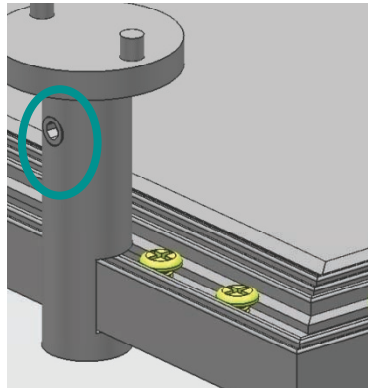
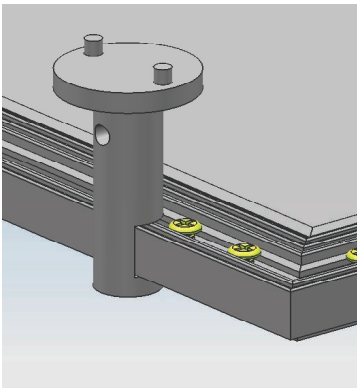
## IK06 Super bracket - Assembly



1. Mark the outline of the fixture and drill the holes on the marked line as shown above. Fasten the bottom part of IK06 to the ceiling as shown in above drawing by using the straight screw.

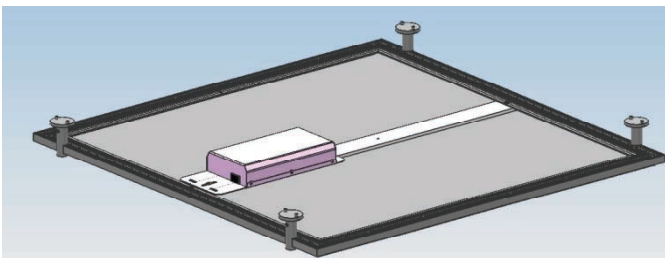


2. Insert top part of IK06 to the GO FLL module.



3. Assemble the bottom part of IK06 to the top part of IK06.

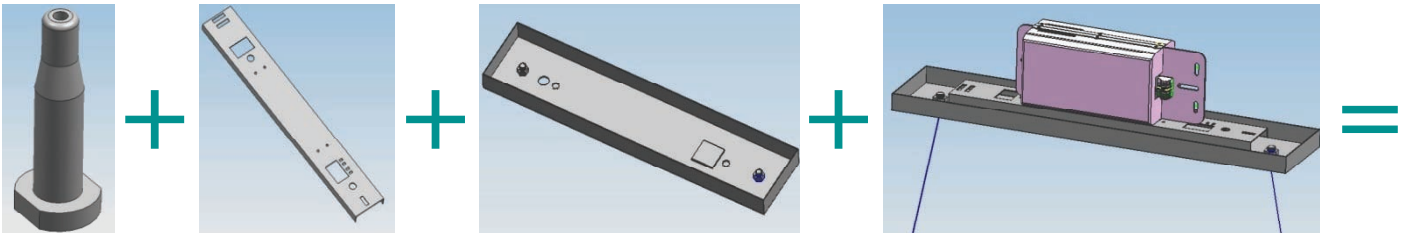
4. Use M5 set screw to assemble the top and bottom part of IK06.



Drawing of completed product using IK06.

## IK07 Installation

### Pendant



Pendant for  
light module

"Frame - 02" for  
ceiling

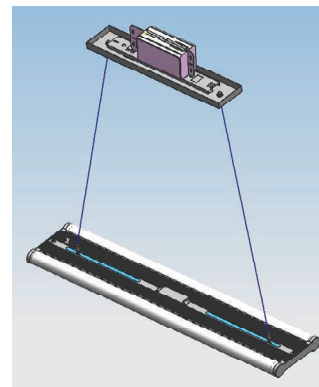
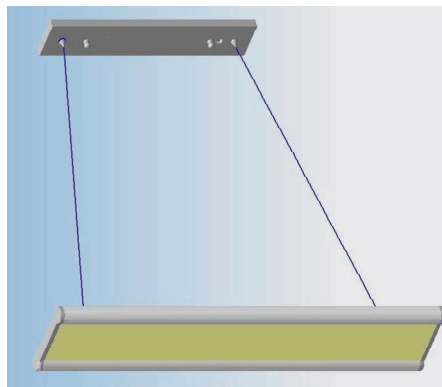
"Frame - 01" for ceiling

Assembled with PSU

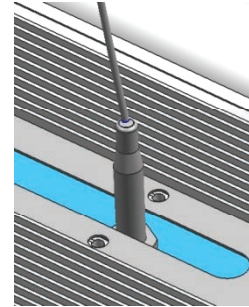
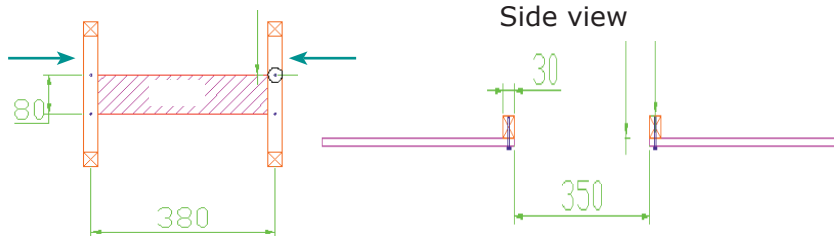


Final product

### IK07 - Application 3D views

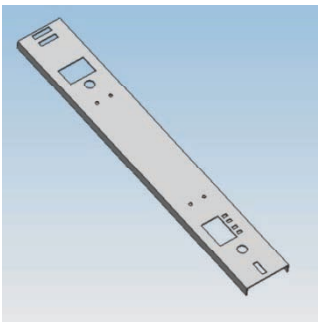


## IK07 Assembly

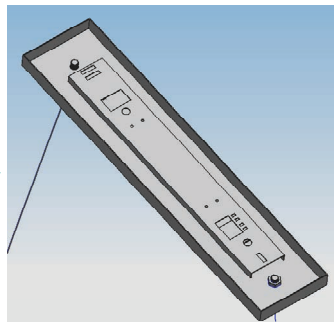


1. Make opening on the ceiling with a size of 80 x 350mm.
2. Fasten support bars to the ceiling to hold a weight of 6Kg.

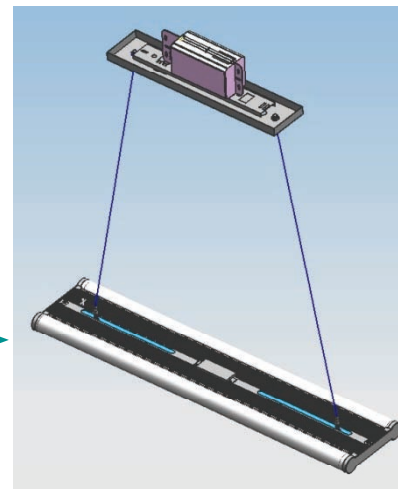
3. Attach pendant bracket to the FLL module as shown



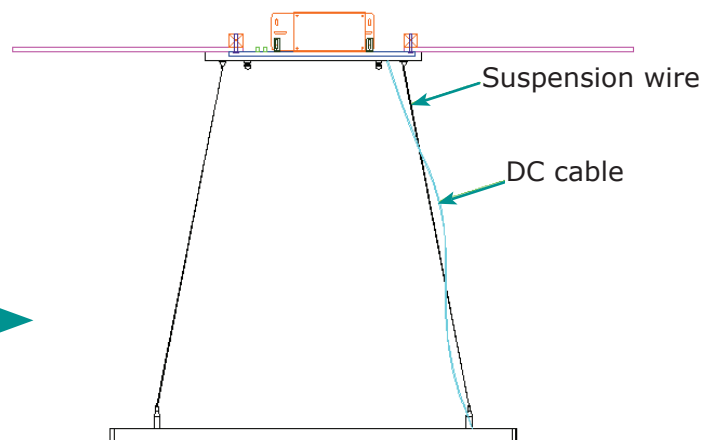
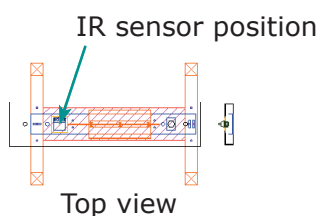
4. After attaching the PSU to the Frame - 02, fasten Frame - 02 to the support bar.



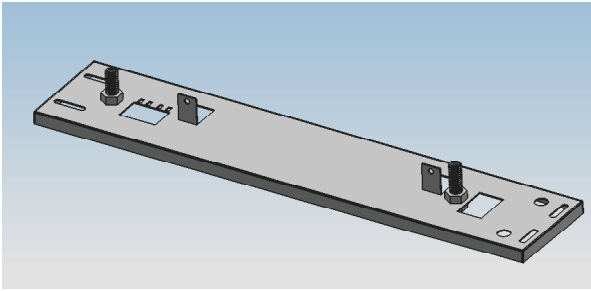
5. Connect PSU to FLL Module using provided DC cable, then fasten Frame - 01 to Frame - 02



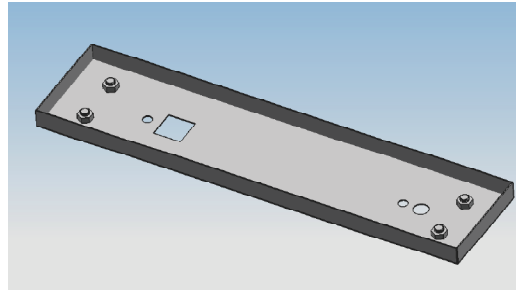
6. Connect Frame - 01 to the FLL module using support wires. See IK05 for directions.



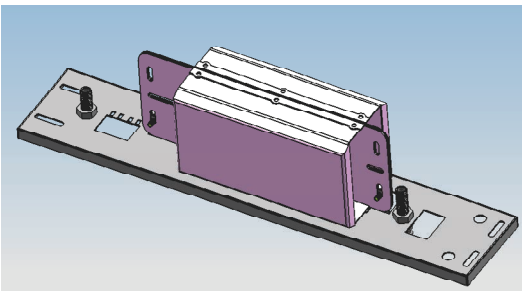
## IK07B - Pendant



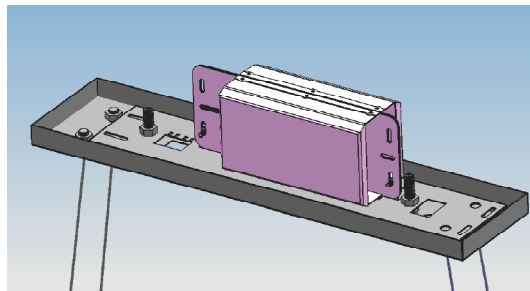
"Frame - 02"



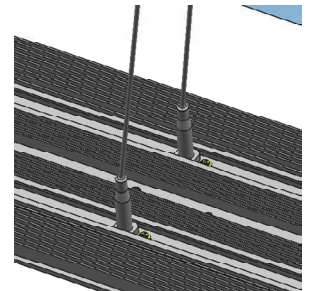
"Frame - 01"



With PSU attached

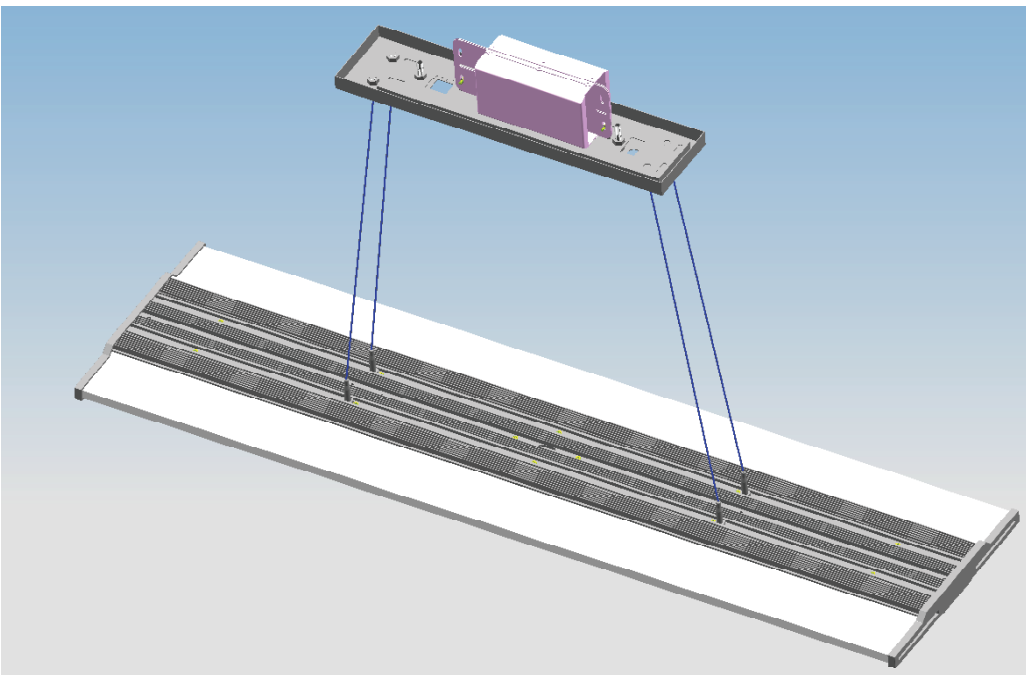


Ceiling assembly with PSU

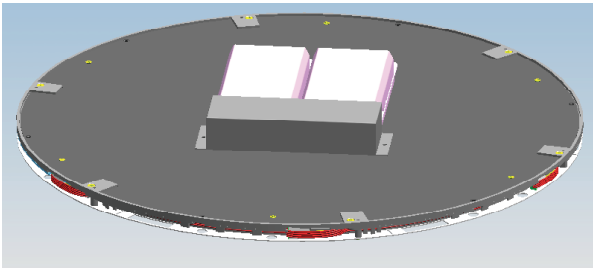


Pendant attached to module

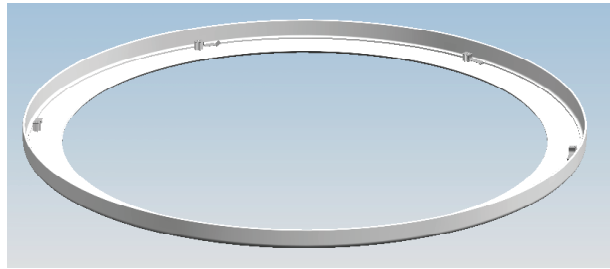
## IK07B with N02



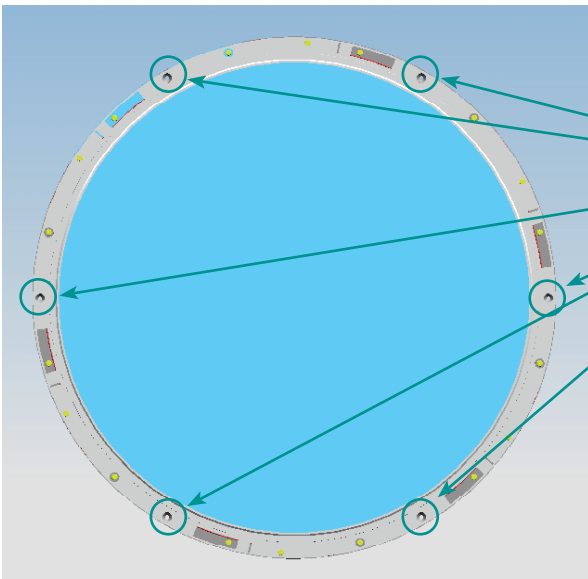
## C series installation



FLL module

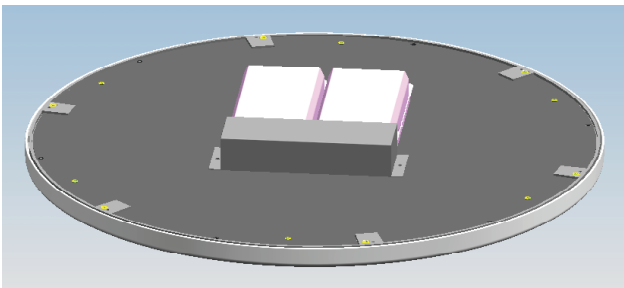


Trim ring

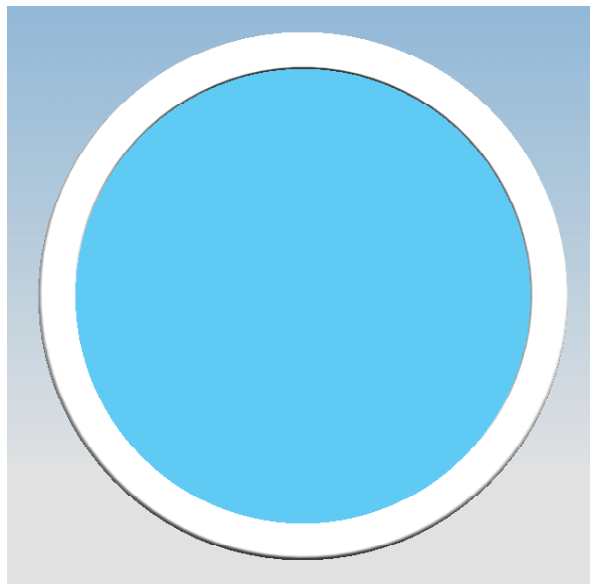


6 pre-drilled holes

After Assembly



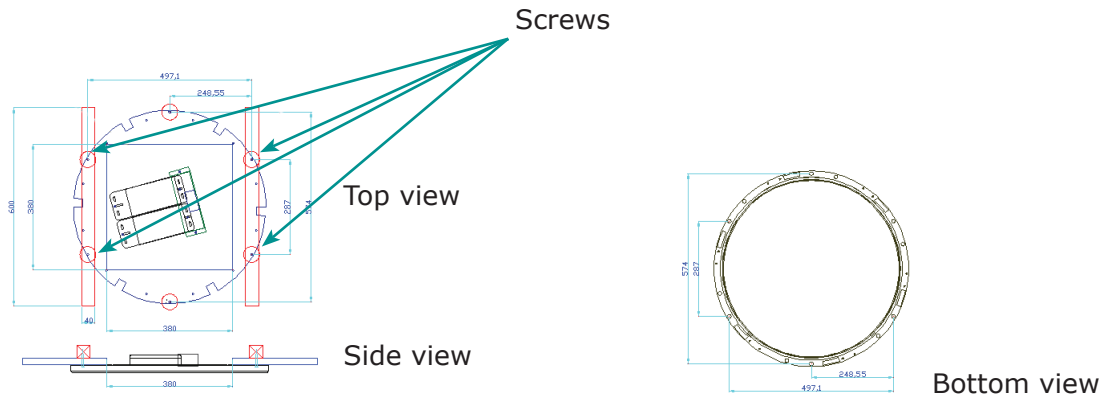
Back



Front

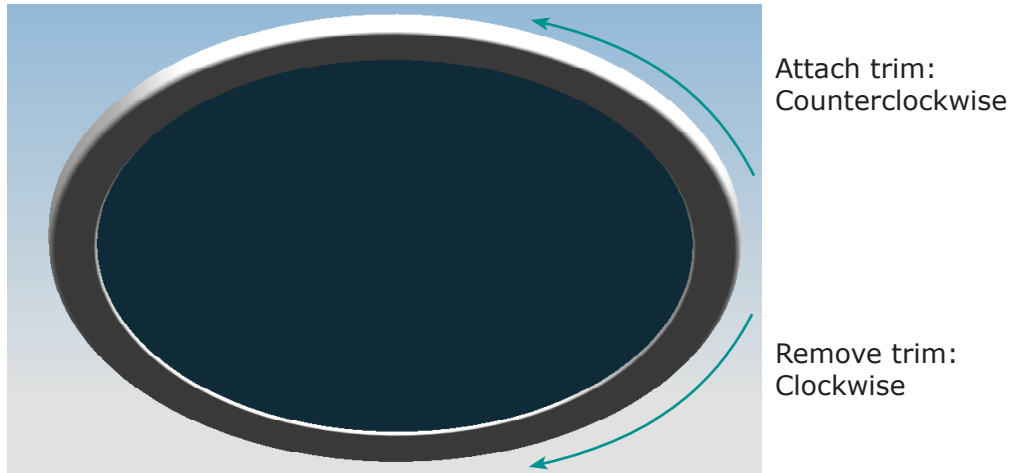
## C series Assembly

1. Cut an opening 380mm x 380mm
2. Fasten support bars to the ceiling with 4 screws to hold a weight of 6.3 kg.



## Trim installation

Turn the trim until you hear a "click".



# Troubleshooting

Please refer to the following chart before calling for service.

Trouble	Check Points
FLL does not turn on	◇ Check AC power line connections; verify circuit breaker and local switch is on.
Remote control does not work	◇ Check batteries inside the remote control; polarity of batteries ◇ Check if FLL is turned on or off ◇ Check location of IR sensor(s) and connection
Network does not work	◇ Check Dip switch settings ◇ Check IR sensor connection to master is properly aligned ◇ Check connection of network cables
FLL Light is flickering	◇ Turn off the AC power and turn on again in 3 minutes. (If problem persists, call GO Lighting Technologies technical support)

Please request service if the troubles persist after you followed the above checkpoints.

Please do not dismantle the products yourself - they may cause electric shock.

Please have the following information ready when you call for service:

Model name  
Name and telephone number of GO authorized dealer  
Date of purchase  
Your name, address, telephone number  
Detailed description of the problem / symptoms

## Contact:

**GO Lighting Technologies Inc.**  
**North America Toll free: 1-866-571-7036**  
**416-679-0259 or fax 416-679-9452**





Thank you for choosing GO Lighting Technologies Inc.  
for all of your energy effective lighting needs. We  
appreciate your business.



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